

NOVEMBER/DECEMBER 2024

**FABC25C/CABC25C/BABC25C —  
BIOCHEMISTRY II - (Allied)**

Time : Three hours

Maximum : 75 marks



**SECTION A — (10 × 2 = 20 marks)**

Answer ALL questions.

1. How many ATP is produced in TCA cycle?
2. What will happen if urea is high?
3. Why would a non-diabetic have ketone in their urine?
4. Which enzyme is deficient in Alkaptonuria?
5. How are enzymes named?
6. What are oxidoreductase enzymes?
7. What enzyme is involved in transcription?
8. State RNA be genetic material.
9. Why vitamins are necessary in our diet?
10. What is water soluble vitamins.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write the significance of HMP shunt.

Or

- (b) Distinguish between oxidative deamination and transamination.

12. (a) Write in brief about PKU syndrome.

Or

- (b) Briefly explain the three types of jaundice.

13. (a) Illustrate the types of enzyme inhibition.

Or

- (b) How do you derive the Michaelis-Menten equation?

14. (a) Write about genetic code.

Or

- (b) Explain the process of translation.

15. (a) Write about the nutritional disorders of fat soluble Vitamins.

Or

- (b) Write the sources for fat soluble vitamins.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the metabolic pathway of glycolysis?

17. Give an account on diabetes mellitus? Symptoms and early diagnosis.

18. Explain about the Lock and Key and Induced Fit Models of Enzyme Activity.

19. Describe the Molecular mechanism of DNA replication.

20. Distinguish between fat and water soluble vitamins?